HAZARDS IDENTIFICATION (ANSI Section 3)

Primary route(s) of exposure : Inhalation, skin contact, eye contact, ingestion.

Effects of overexposure :

Inhalation : Irritation of respiratory tract. Prolonged inhalation may lead to mucous membrane irritation, drowsiness, dizziness and/or lightheadedness, headache, nausea, coughing, central nervous system depression, respiratory problems, intoxication, confusion, difficulty of breathing, blood abnormalities, kidney damage, pneumoconiosis, loss of consciousness.

Skin contact : Irritation of skin. Prolonged or repeated contact can cause dermatitis, defatting, blistering, severe skin irritation. Possible sensitization to skin.

Eye contact : Irritation of eyes. Prolonged or repeated contact can cause conjunctivitis, tearing of eyes, redness of eyes, severe eye irritation.

Ingestion : Ingestion may cause mucous membrane irritation, dizziness and/or lightheadedness, headache, nausea, vomiting, diarrhea, gastro-intestinal disturbances, severe abdominal pain, abdominal pain, apathy, central nervous system depression, respiratory problems, intoxication, blood abnormalities, burns of the mouth, throat, stomach, kidney damage, pulmonary edema, loss of consciousness, acute poisoning, respiratory failure, cardiac failure, brain damage.

Medical conditions aggravated by exposure : Eye, skin, respiratory disorders lung disorders asthma-like conditions kidney disorders liver disorders

FIRST-AID MEASURES (ANSI Section 4)

Inhalation : Remove to fresh air. Restore and support continued breathing. Get emergency medical attention. Have trained person give oxygen if necessary. Get medical help for any breathing difficulty. Remove to fresh air if inhalation causes eye watering, headaches, dizziness, or other discomfort.

Skin contact : Flush from skin with water. Then wash thoroughly with soap and water. Remove contaminated clothing. Wash contaminated clothing before re-use. If irritation occurs, consult a physician.

Eye contact : Flush immediately with large amounts of water, especially under lids for at least 15 minutes. If irritation or other effects persist, obtain medical treatment.

Ingestion : If swallowed, obtain medical treatment immediately.

FIRE-FIGHTING MEASURES (ANSI Section 5)

Fire extinguishing media : Dry chemical or foam water fog. Carbon dioxide. Vapors are heavier than air and may travel long distances to a source of ignition and flash back. Closed containers may burst if exposed to extreme heat or fire. Dust explosion hazard. May decompose under fire conditions emitting irritant and/or toxic gases.

Fire fighting procedures : Water may be used to cool and protect exposed containers. Firefighters should use full protective clothing, eye protection, and self-contained breathing apparatus. Self-contained breathing apparatus recommended.

Hazardous decomposition or combustion products : Carbon monoxide, carbon dioxide, oxides of nitrogen, acrid fumes, phosphorous, hydrogen cyanide, oxygen, toxic gases, smoke and soot. Manganese oxides

ACCIDENTAL RELEASE MEASURES (ANSI Section 6)

Steps to be taken in case material is released or spilled : Comply with all applicable health and environmental regulations. Eliminate all sources of ignition. Ventilate area. Spills may be collected with absorbent materials. Place collected material in proper container. Complete personal protective equipment must be used during cleanup. Large spills - shut off leak if safe to do so. Dike and contain spill. Pump to storage or salvage vessels. Use absorbent to pick up excess residue. Keep salvageable material and rinse water out of sewers and water courses. Small spills - use absorbent to pick up residue and dispose of properly.

HANDLING AND STORAGE (ANSI Section 7)

Handling and storage : Store below 100f (38c). Keep away from heat, sparks and open flame. Keep from freezing.

Other precautions : Use only with adequate ventilation. Do not take internally. Keep out of reach of children. Avoid contact with skin and eyes, and breathing of vapors. Wash hands thoroughly after handling, especially before eating or smoking. Keep containers tightly closed and upright when not in use. Avoid conditions which result in formation of inhalable particles such as spraying or abrading (sanding) painted surfaces. If such conditions cannot be avoided, use appropriate respiratory protection as directed under exposure controls/personal protection. Empty containers may contain hazardous residues. Ground equipment when transferring to prevent accumulation of static charge.

EXPOSURE CONTROLS/PERSONAL PROTECTION (ANSI Section 8)

Respiratory protection : Control environmental concentrations below applicable exposure standards when using this material. When respiratory protection is determined to be necessary, use a NIOSH/MSHA (Canadian z94.4) Approved elastomeric sealing- surface facepiece respirator outfitted with organic vapor cartridges and paint spray (dust/mist) prefilters. Determine the proper level of protection by conducting appropriate air monitoring. Consult 29CFR1910.134 For selection of respirators (Canadian z94.4).

Ventilation : Provide dilution ventilation or local exhaust to prevent build-up of vapors.

Personal protective equipment : Eye wash, safety shower, safety glasses or goggles. Impervious gloves, impervious clothing, boots.

STABILITY AND REACTIVITY (ANSI Section 10)

Under normal conditions : Stable see section 5 fire fighting measures

Materials to avoid : Oxidizers, acids, reducing agents. Alkalis copper, hypochlorites, mineral acids. Nitrates. Chlorinated rubber hydrazine performic acid bromine pentafluoride

Conditions to avoid : Elevated temperatures, contact with oxidizing agent, contamination, freezing, sparks, open flame.

Hazardous polymerization : Will not occur

TOXICOLOGICAL INFORMATION (ANSI Section 11)

Supplemental health information : Contains a chemical that may be absorbed through skin. Excessive inhalation of fumes may lead to metal fume fever characterized by a metallic taste in mouth, excessive thirst, coughing, weakness, fatigue, muscular pain, nausea, chills and fever. Other effects of overexposure may include toxicity to liver, kidney, lungs.

Carcinogenicity : The international agency for research on cancer (IARC) has classified carbon black as possibly carcinogenic to humans (group 2b) based on sufficient evidence in animals and inadequate evidence in humans. Notice: in a 2 year study conducted by the national toxicology program (NTP), there was clear evidence of carcinogenic activity in male and female mice dermally exposed to diethanolamine based on development of liver and kidney tumors. There was no evidence of carcinogenicity in either male or female rats. The relevance of this study to humans is not known.

Reproductive effects : No reproductive effects are anticipated

Mutagenicity : No mutagenic effects are anticipated

Teratogenicity : Some laboratory test results have shown ethylene glycol to be an animal teratogen.

ICI Paints North America 925 Euclid Avenue Cleveland, Ohio 44115 EMERGENCY TELEPHONE NO. (800) 545-2643

Waste disposal : Dispose in accordance with all applicable regulations. Avoid discharge to natural waters.

Physical Data (ANSI Sections 1, 9, and 14)

Product Code	Description	Wt. / Gal.	VOC gr. / ltr.	% Volatile by Volume	Flash Point	Boiling Range	HMIS	DOT, proper shipping name
1789	ici colorant raw umber	12.82	535.45	63.06	none	212-500	*210	paint ** protect from freezing **
1790	ici colorant yellow oxide (yox) jaune oxyde	15.31	606.02	64.93	none	212-500	*310	paint ** protect from freezing **
1791	ici colorant lemon yellow (lfy) jaune citron	11.14	460.46	57.38	none	212-500	*210	paint ** protect from freezing **
1792	ici colorant thalo green (grn) vert thalo	12.07	469.77	58.10	none	212-500	*210	paint ** protect from freezing **
1793	ici colorant thalo blue (tbl) bleu thalo	11.65	497.68	59.14	none	212-500	*210	paint ** protect from freezing **
1794	ici colorant white (wht) blanc	14.39	427.74	52.37	none	212-500	*210	paint ** protect from freezing **
1795	ici colorant magenta (mag)	10.70	535.53	65.19	none	212-680	*210	paint ** protect from freezing **
1796	ici colorant fast fast red (ffr) rouge vif	11.52	505.15	56.46	none	212-500	*210	paint ** protect from freezing **
1797	ici colorant black (blk) noir	12.27	500.96	56.03	none	212-500	*210	paint ** protect from freezing **
1798	ici colorant oxide red (oxr) rouge oxyde	14.72	442.31	54.74	none	212-500	*210	paint ** protect from freezing **

Ingredients Product Codes with % by Weight (ANSI Section 2)

Chemical Name	Common Name	CAS. No.	1789	1790	1791	1792	1793	1794	1795	1796	1797	1798
ethanol, 2,2',2"-nitrilotris-	triethanolamine	102-71-6							1-5			
quino(2,3-b)acridine-7,14-dione, 5,12-dihydro-	quinacridone red	1047-16-1								1-5		
1,2-ethanediol	ethylene glycol	107-21-1	20-30	20-30	20-30	20-30	20-30	10-20	20-30	20-30	20-30	10-20
ethanol, 2,2'-iminobis	diethanolamine	111-42-2					.1-1.0		.1-1.0	.1-1.0		
poly(oxy-1,2-ethanediyl, alpha-4-nonylphenyl)- omega-hydroxy-, branched	glycol ether	127087-87-0	5-10	1-5	5-10	5-10	5-10	1-5	5-10	5-10	5-10	5-10
umber	raw umber	12713-03-0	20-30									
manganese oxide	manganese oxide	1317-34-6	1-5									
c.i. pigment green 7	phthalo green pigment	1328-53-6				5-10						
iron oxide	iron oxide	1332-37-2										30-40
kaolin	clay	1332-58-7	5-10	1-5	20-30	30-40	30-40	20-30	20-30	30-40	40-50	20-30
carbon black	carbon black	1333-86-4	1-5								5-10	
titanium oxide	titanium dioxide	13463-67-7						20-30				
9-octadecenoic acid, 12-hydroxy-, methyl ester, (r-(z))-	maleic ricinoleate polyester plasticizer	141-24-2					1-5					
copper, (29h, 31h-phthalocyaninato(2-)n29,n30,n31, n32}-,(sp-4-1)-	phthalocyanine blue pigment	147-14-8					5-10					
aluminum hydroxide	aluminum hydroxide	21645-51-2						1-5				
c.i. pigment yellow 42	yellow iron oxide	51274-00-1	1-5	50-60								
1,2,3-propanetriol	glycerine	56-81-5			1-5	1-5		1-5	1-5			
benzoic acid, 4-((2,5-dichlorophenyl)amino) carbonyl)-2-((2-hydroxy-3-((2-methoxyphenyl)amino) carbonyl)-1-naphthalenyl)azo)-, methyl ester	monoazo red	61847-48-1								5-10		
butanamide, 2-((2-methoxy-4-nitrophenyl)azo) -n-(2-methoxyphenyl)-3-oxo-	pigment yellow 74	6358-31-2			10-20							
nickel	nickel	7440-02-0		.01-.1								
arsenic	arsenic	7440-38-2	.01-.1									
chromium	chromium	7440-47-3		.01-.1								
silica	amorphous silica	7631-86-9						1-5				
water	water	7732-18-5	10-20	10-20	20-30	10-20	10-20	10-20	20-30	10-20	10-20	10-20
lecithins	lecithin	8002-43-5	1-5		1-5	1-5	1-5	1-5	1-5	1-5	5-10	1-5

Ingredients (Continued)

Product Codes with % by Weight (ANSI Section 2)

Chemical Name	Common Name	CAS. No.	1789	1790	1791	1792	1793	1794	1795	1796	1797	1798
2-pyrrolidinone, 1-methyl-	n-methylpyrrolidone	872-50-4				1-5	1-5					
quino(2,3-b)acridine-7,14-dione, 5,12-dihydro-2,9- dimethyl-	quinacridone red	980-26-7							5-10			
trade secret	trade secret	Sup. Conf.			1-5							

Chemical Hazard Data

(ANSI Sections 2, 8, 11, and 15)

		ACGIH-TLV				OSHA-PEL				S.R.	S2	S3	CC					
Common Name	CAS. No.	8-Hour TWA	STEL	C	S	8-Hour TWA	STEL	C	S	Std.				H	M	N	I	O
triethanolamine	102-71-6	5 mg/m3	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
quinacridone red	1047-16-1	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
ethylene glycol	107-21-1	not est.	not est.	100 mg/m3	not est.	not est.	not est.	not est.	not est.	not est.	n	y	y	y	n	n	n	n
diethanolamine	111-42-2	2 mg/m3	not est.	not est.	y	not est.	not est.	not est.	not est.	not est.	n	y	n	y	n	n	n	n
glycol ether	127087-87-0	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	y	n	y	n	n	n	n
raw umber	12713-03-0	10 mg/m3	not est.	not est.	not est.	15 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
manganese oxide	1317-34-6	.2 mg/m3	not est.	not est.	not est.	1 mg/m3	3 mg/m3	5 mg/m3	y	not est.	n	y	n	y	n	n	n	n
phthalo green pigment	1328-53-6	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
iron oxide	1332-37-2	5 mg/m3	not est.	not est.	not est.	10 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
clay	1332-58-7	2 mg/m3	not est.	not est.	not est.	5 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
carbon black	1333-86-4	3.5 mg/m3	not est.	not est.	not est.	3.5 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	y	n
titanium dioxide	13463-67-7	10 mg/m3	not est.	not est.	not est.	10 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
maleic ricinoleate polyester plasticizer	141-24-2	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
phthalocyanine blue pigment	147-14-8	10 mg/m3	not est.	not est.	not est.	05 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
aluminum hydroxide	21645-51-2	10 mg/m3	not est.	not est.	not est.	5 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
yellow iron oxide	51274-00-1	5 mg/m3	not est.	not est.	not est.	10 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
glycerine	56-81-5	10 mg/m3	not est.	not est.	not est.	5 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
monoazo red	61847-48-1	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
pigment yellow 74	6358-31-2	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
nickel	7440-02-0	1.5 mg/m3	not est.	not est.	not est.	1 mg/m3	not est.	not est.	not est.	not est.	n	y	y	y	n	y	y	n
arsenic	7440-38-2	0.01 mg/m3	not est.	not est.	not est.	0.01 mg/m3	not est.	not est.	not est.	not est.	n	y	y	n	n	y	y	n
chromium	7440-47-3	0.5 mg/m3	not est.	not est.	not est.	1 mg/m3	not est.	not est.	not est.	not est.	n	y	y	y	n	n	n	n
amorphous silica	7631-86-9	10 mg/m3	not est.	not est.	not est.	6 mg/m3	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
lecithin	8002-43-5	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
n-methylpyrrolidone	872-50-4	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	y	n	n	n	n	n	n
quinacridone red	980-26-7	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n
trade secret	Sup. Conf.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	not est.	n	n	n	n	n	n	n	n

Footnotes:

C=Ceiling - Concentration that should not be exceeded, even instantaneously.

S=Skin - Additional exposure, over and above airborn exposure, may result from skin absorption.

n/a=not applicable
not est=not established
CC=CERCLA Chemical

ppm=parts per million
mg/m3=milligrams per cubic meter
Sup Conf=Supplier Confidential

S2=Sara Section 302 EHS
S3=Sara Section 313 Chemical
S.R.Std.=Supplier Recommended Standard

H=Hazardous Air Pollutant, M=Marine Pollutant
P=Pollutant, S=Severe Pollutant
Carcinogenicity Listed By:
N=NTP, I=IARC, O=OSHA, y=yes, n=no